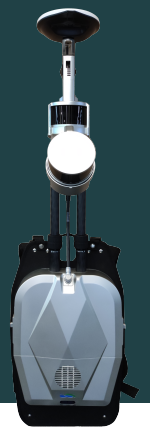
GreenValley International

# LiBackpack DGC50H

## Backpack LiDAR Scanning System



The Libackpack DGC50H backpack lidar scanning system is an upgraded version of the Libackpack Product Series. This device integrates a longer-range laser radar sensor in the horizontal and vertical directions, with better inertial navigation systems and self-developed batteries; The GNSS device and synchronization positioning and chart construction (SLAM) technology, regardless of whether there is GNSS information in the scanning environment, can obtain high-precision 3D points within the scanning range; Exquisite, double the efficiency! It can be used in the fields of power patrol, forestry survey, mining measurement, underground space information acquisition, building facade measurement, BIM, and other fields.

## Advantages

### 5.7K delayed photography, fine into micro, double efficiency

Adopt a high-resolution panoramic camera, and support 5.7K delay photography, the panoramic view is clearer and more realistic. The video size is reduced by 30-40 times compared to the previous generation backpack, shortening the video copy and transcoding time by 20 times.

### High point frequency, more detailed portrayal

Dual laser heads with scanning frequencies of up to 640,000 dots per second.

### High precision, high efficiency

The LiBackpack DGC50H can directly acquire point cloud data with absolute coordinates when used with virtual base stations or self-racked base stations. The laser range can reach 120 meters, the battery life is 2.5 hours, the park can be measured in 30min of 2W flat, and the laser point cloud data within 5cm of absolute accuracy can be output to meet the requirements of high-precision mapping.

### Carry light

Ergonomic structure design, 8.6kg light carrying, easy work.

### Real-time processing, ready-to-use export

The collected target point cloud data supports the real-time synchronous display of mobile terminals such as mobile phones/tablets, supports online closed-loop and closed-loop optimization, and exports real-time point cloud data and motion tracks after scanning.

### Simple to handle

With LiFuser-BP post-processing software, high-precision color point cloud data and panoramic images can be generated with one click.

### The results can be directly imported into LiDAR360 MLS, LiDAR 360

Combined with LiDAR360-MLS and LiDAR 360 software, it can realize urban road component census, floor plan drawing, elevation measurement, single wood division, mine cave measurement, and other applications.

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# Specifications

| | | | |
|---|---|---|---|
| **System Parameters** | | | |
| Size | 1135*318*315mm (extended) 960*318*315mm (closed) | | |
| Scan rate (Single return) | 640,000pts/s (single return) | | |
| Relative Accuracy | ±3cm | Absolute Accuracy | ±5cm |
| Weight (With camera) | 8.6kg | Internal Storage | 512GB |
| Work Mode | Backpack Scanner | Power consumption | 50W |
| **LiDAR Sensor** | | | |
| Number of channels | 16 channels | FOV | Horizontal: 360°<br>Vertical: 180°(-90~90) |
| Number of Returns | 2 | LiDAR Accuracy | ±1cm |
| Number of sensors | 2 | Scan Range | 120m |
| **GNSS** | | | |
| Satellites | GPS: L1 C/A, L1C, L2C, L2P, L5<br>GLONASS: L1 C/A, L2C, L2P, L3, L5<br>Galileo: E1, E5a, E5b, E5 Alt BOC,E6<br>BeiDou: B1, B2 | Positioning | 1cm+1ppm |
| **Camera** | | | |
| video resolution | 5760*2880 | Video recording method | Time-lapse, 2s/frame |
| FOV | 360° panorama | Pixels | 1800w |